It is also relevant that cable operators have found efficient ways to accommodate this demand without resorting to a formal commercial leased access arrangement. The information provided by Time Warner, discussed above, indicates that several operators have been able to accommodate programmers who have inquired about the availability of commercial leased access through providing slots in normal programming. For example, time slots are often available as a result of the Commission's non-duplication rules. This is obviously an efficient way to meet the objectives of commercial leased access with a minimum of disruption to cable operations. Finally, as discussed in Section IV, in many cases PEG channels are a substitute for commercial leased access, providing locally originated information and views from sources unaffiliated with the cable operator.

## IV. THE SUPPLY OF LEASED ACCESS PROGRAMMING

One explanation for the limited level of commercial leased access demand described above is that entertainment and information programs are expensive to produce. The economics of programming dictate that audiences be maximized through widespread distribution. This can take many forms. Movies, for example, typically do not recover their costs from the first run, but continue to generate revenue from subsequent runs, video outlets, and premium cable programming. Most satellite cable

network programming requires wide geographic distribution before it becomes profitable to produce.[18]

National cable networks have emerged because that form of distribution is economically efficient. The wider audiences such networks can attract make programming for minority tastes feasible. Moreover, transaction costs are reduced through cable MSOs bargaining with cable networks. As noted earlier, the increased cable capacity in recent years has allowed the proliferation of such networks.

This does not mean that local interest programming is unavailable. In most communities, local news and public affairs programming is available from the multiple local broadcast stations carried on cable systems as well as from local or regional cable programming services.[19] The PEG capacity discussed earlier is also a source of such programming. Finally, newspapers and magazines are obviously alternative sources of news and public affairs information.

## V. CABLE COMPANY COSTS

Making leased access capacity available is expensive. The Commission proposes to reimburse cable operators for the direct costs of providing leased access as well as some opportunity costs. The Commission, however, proposes to ignore other opportunity costs that, from the cable operator perspective, are

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[18] Owen and Wildman, Video Economics, describe this phenomena in detail. Supra, note 15, pp. 26-37.

[19] Local news and public affairs programming are obviously exceptions to the programming network economies discussed above.

real. In some cases, these opportunity costs may be quantifiable. In other cases, the costs may be difficult to quantify but are no less real. Three separate types of cost are identified below: direct costs, opportunity costs and social costs (including the cost of compliance).

A. Direct Costs

To accommodate independent programmers, cable operators must incur a variety of expenses. Many of these expenses are fixed in nature. That is, even if demand for only a segment of one channel materializes, all, or a large portion of the costs would still have to be incurred.

1. Personnel and Equipment

Cable provision of commercial leased access requires staff to develop rates, handle inquiries, negotiate contracts, bill programmers and collect revenues. If demand is small, these functions may be accommodated with existing overhead. In a small system with little overhead infrastructure, the incremental cost could be substantial. Even in large systems, incremental costs could be high if there is large channel capacity with a correspondingly high maximum commercial leased access channel requirement. If commercial leased access programmers wish to provide pay services, there will be additional costs to modify billing systems and to bill customers (if the cable system offers billing services to the programmer).

Equipment costs can also be significant. To the extent commercial leased access is not distributed via satellite (which

is the likely case unless satellite networks migrate to commercial leased access channels), the cable operator must have facilities for handling programmer tapes or live originations. These expenses can mount if programming is demanded for narrow time slots, which requires multiple extra tape bays. If there is a high level of churn in commercial leased access originations, it may be difficult for cable operators to recover these expenses.

2. Customer Notification

Rearrangement of programming line-ups to meet commercial leased access obligations will result in costs. Cable operators typically notify customers of changes with bill inserts providing the notification and a new channel guide.

3. Contractual Costs

If cable operators contract with programming suppliers, there may be termination liability when a programmer must be dropped from the channel line-up in order to provide capacity for a leased access provider.

B. Opportunity Costs

There are several types of opportunity costs associated with the provision of commercial leased access, as set forth below.

1. Direct Revenue Loss

If the current formula is abandoned, cable operators may lose revenue from cable networks or pay services that move to leased access status. In fact, the most valuable programming is the most likely to migrate. Therefore, the revenue loss to

operators is likely to be substantial, even if only a few programs migrate. If operators do not lose revenue, it will be because a sufficient number of channels move to leased access status, allowing market rates to replace the proposed formula. The result will be churn in cable lineups and customer confusion, but no real positive benefits for consumers. Moreover, the cable operator may lose advertising revenue from displaced cable networks.

2. Customer Loss

If existing programming is replaced with different leased access programming, there is a reasonable presumption that customer satisfaction will be reduced. This is because cable operators currently have every incentive to maximize consumer welfare. By identifying customer demand and building a programming line-up designed to maximize subscription, consumer welfare is increased. With the reduced consumer satisfaction that is likely if programs are displaced by leased access, there is an obvious risk of subscription cancellations as programs valued by certain consumer segments are replaced.

As discussed above, some commercial leased access programming may be actively disliked by some portion of the viewing population. Protest cancellations could be the result. The resulting revenue losses can be substantial. Revenue losses are discussed further in Section VII below.

3. Competitive Loss

There is little question that video competition is growing.[20] This competitive growth is documented in the Commission's most recent report on video programming competition.[21] Among the findings of the Commission Video Competition Report are the following:

- . . . instances of overbuild competition, particularly from LECs, appear to be increasing;
- The number of subscribers to DBS services has more than doubled since the end of 1994 . . . ,
- Wireless Cable systems experienced a 33% growth in subscribers since the end of 1994 . . .
- Since the 1994 Report, some LECs have modified their plans for entry into video distribution markets and, in addition to pursuing VDT deployment, have announced plans to enter the market using either wired cable or wireless cable facilities. A number of LECs also have announced joint ventures to collaborate on the production and acquisition of video programming . . .[22]

The Commission points out that significant regulatory and technical changes continue in the industry.[23]

The implications of video competition for the application of commercial leased access rules are important. If cable companies must make available a significant portion of their channel capacity for programs that duplicate existing material or replace

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[20] The discussion in this Section does not depend on a finding that the market in which cable operators compete is already competitive. The only assumption required is that competition is growing.

[21] Competition Report, supra, note 7.

[22] Id., p. 6.

[23] Id.

programming valued by subscribers, their package of offerings will be less desirable to consumers. This is already happening. In New York City, for example, a SMATV competitor to the cable system is advertising the availability of programming that the cable system does not carry due to its commercial leased access obligation.

In this context, it must be remembered that cable operators are already under burdensome requirements to carry programming that they would not necessarily choose. The must-carry provisions have resulted in the requirement that cable operators carry programming that does not necessarily provide diversity or otherwise maximize the welfare of their customers. Forcing cable operators to carry additional unwanted programming through an artificial reduction of the commercial leased access rates will further restrict their ability to compete with new entrants. PEG programming requirements may also reduce cable operator programming flexibility. DBS and MMDS competitors do not face these requirements.

The Commission has ruled that as a legal matter, leased access obligations would not be eliminated in the face of a finding of effective competition under the statute. Nevertheless, competitive factors affect the calculus underlying commercial leased access pricing rules. Rule changes that are likely to place cable operators at a competitive disadvantage (or exacerbate the competitive disadvantage that already exists) obviously have a negative impact on cable operations.

C. Social Costs

Reducing leased access rates will likely impose additional costs on society. For example, cable customers do not like churn in cable line-ups. Migration of channels to leased access capacity and total displacement of some programs will lead to customer dissatisfaction and complaints.[24] In terms of displacement, the programming most likely to be eliminated will be programming that caters to niche tastes.

At best, leased access programming will lead to the substitution of one niche preference for another, leaving some consumers worse off and an equal number of consumers better off. At worst, replacement of existing programming with commercial leased access programming will leave most consumers worse off. The worst case is the expected outcome. High quality programmers are unlikely to choose commercial leased access because the transactions cost of distribution are so much higher. Even if programming substitution is based on first come, first served, lower quality programming is likely to enter the mix.

Another potentially significant social cost is the cost of enforcement and compliance. The existing formula requires little in the way of company administration or Commission oversight. The cost based formula will require substantially more paper work and administrative effort for both cable operators and the

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[24] This problem can also obviously contribute to the negative competitive effects discussed earlier.

government, along with the distortions that economic regulation invariably cause.

## VI. EVALUATING THE PROPOSED RULE CHANGE

The preceding discussion shows that the proposed changes to the existing rule are unwarranted. If, nevertheless, the Commission were to decide to change the rule anyway, it would be necessary, at a minimum, to attempt to include in the opportunity cost calculation the negative effects of subscriber loss due to a less competitive channel line-up or a channel line-up that includes programming that some subscribers may find distasteful. It is unreasonable to assume that an increase in the supply of commercial leased access programming will increase subscribership. If there were programming available that would lead to subscriber increases, cable operators have the economic incentive and market expertise to identify that programming and add it to their lineups voluntarily.

The Commission concludes that ". . . the cost formula should not explicitly include revenue lost because of a purported loss in subscribership to a particular tier because particular programming is dropped."[25] The Commission suggests that precise quantification of these impacts would be difficult, but the costs are real and likely to be substantial, particularly with the growing level of video competition.

Cable operators believe that full use of designated commercial leased access channels will have a substantial

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[25] Further Notice, supra, note 4, para. 86.

negative impact on the overall desirability of their programming to consumers. An operator that must make five channels available, for example, would have to cut satellite networks that are highly valued by a significant fraction of their subscribers. A subscriber that values one particular service very highly is obviously likely to cancel if that service is dropped. This is particularly true if a competitor begins offering the service as a result.

The quantitative impact of lost subscribership can be illustrated with an example. The Time Warner Tampa Bay system has average per subscriber revenues of $386 per year, or $32 per month.[26] The actual net per subscriber revenue loss would be less than $32. Approximately 30 percent of the $32 average revenue represents costs that would be avoided if subscribers were lost. These include license fees and billing expenses.

If a significant number of commercial leased access channels were to be added to the Tampa Bay line-up, programming popular with niche audiences, such as CNBC and C-SPAN, would have to be eliminated. As a result, the subscriber base would fall. If subscription were to fall by only 2.5 percent (1,750 customers) because highly preferred programming is eliminated or because

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[26] This is the national average. See, Competition Report, supra, note 7, p. B-3.

objectionable programming is added, the revenue loss to the system would be 57 cents per month per remaining subscriber.[27]

A 10 percent loss of business is not unreasonable if cable competitors are present, particularly if the commercial leased access programming is offensive to a significant number of subscribers.[28] The Tampa Bay system already faces competition from DBS and MMDS and is expecting additional competition from the telephone company (GTE) before the end of the year. In this case, the loss would be approximately 50 cents per leased access channel per subscriber. Costs of this nature must be factored into any commercial leased access pricing analysis. This amount alone is larger than the existing commercial leased access rate.

These hypothetical subscriber loss figures are not unreasonable. If consumers have a high preference for particular channels, cancellations are likely if the programs are withdrawn from the channel line-up. If the bumped channels are replaced with programming that duplicates cable system programming that remains in the line-up, then it is unlikely that a significant number of new subscribers will be added.

The Commission believes that the current formula leads to double billing because cable operators continue to collect per

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[27] This 57 cent figure is derived by multiplying lost subscribers times net revenue loss and dividing by remaining subscribers.

[28] A recent survey found that DBS is valued by consumers because of ". . . its ability to deliver more programming and better programming." Thomas P. Southwick, "Are Subscribers Ready to Switch? You Bet . . . And Pricing is the Key," Cable World, April 29, 1996, p. 178.

channel revenues from subscribers, while collecting the maximum implicit fee from commercial leased access providers. This analysis is incorrect. It is true that the Commission's current cable regulatory scheme allows cable operators to determine rates by multiplying the total number of channels times a maximum per channel rate. However, this does not mean that every channel adds the same value to the cable operator. If undesirable commercial leased access programming drives out programming that subscribers value, then that new programming has a negative value.

Finally, the Commission proposes to prorate the full channel cost for purposes of assessing rates for part time use. The Commission appropriately allows for time of day charging to reflect the value of different day parts. However, the opportunity cost of making small time increments available on a single channel are greater than the opportunity cost of making a single channel available for full time use by a single leased access provider.

The transaction costs of dealing with multiple suppliers are obviously higher than the cost of dealing with only one party. There will be additional administrative costs of coordinating schedules. Therefore, the Commission should allow cable operators to place a premium on part time use. The percentage difference between the hourly use of a satellite channel to full time use might be used as a proxy to measure the appropriate premium.

## VII. CONCLUSION

Revision of the maximum implicit fee formula will not improve consumer welfare. In fact, consumer welfare is likely to be reduced. The operations of cable programmers will obviously be damaged as a result.

This conclusion would hold even if video competition were not growing. But competition is growing and the imposition of the Commission's current commercial leased access rules handicap cable systems. The proposed formula will exacerbate this problem.

Attachment

**HATFIELD ASSOCIATES, INC.**
**International Telecommunications Consultants**
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(303) 442-5395

## Statement of Qualifications

### General Qualifications

Hatfield Associates, Inc. (HAI) is an interdisciplinary consulting and research firm serving a wide range of telecommunications industry clients. The firm was founded in February, 1982. In the more than one decade of its existence, the firm has provided consulting and educational services in nearly all aspects of the present and future telecommunications infrastructure, including local exchange networks, cable television systems, competitive access networks, land mobile and personal communications, long haul terrestrial and satellite communications, data communications, and customer premises equipment. Principals of the firm include consultants with graduate degrees and decades of senior level experience in engineering, economics, business, and policy/regulation.

Examples of recent consulting assignments include:

- Estimating the investments and costs associated with the provision of local exchange and exchange access services;

- Analyzing the potential for competitive entry into the local exchange telecommunications business, presented in a paper entitled "The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers";

- Testifying in state proceedings on various aspects of competitive entry into local exchange and exchange access services, and on state mechanisms to fund Universal Service;

- Assessing the technological and economic merits of various telephone companies' plans for offering video dialtone services;

- Preparing a report entitled "Cross-Subsidy Concerns Raised by Local Exchange Company Provision of Video Dialtone Services" that was attached to a petition filed with the Federal Communications Commission (FCC) by the National Cable Television Association and the Consumer Federation of America;

- Developing a vision statement dealing with the future of cable television networks in providing telecommunications and enhanced video services;

- Authoring the "Telecommunications Technology" and "Utility Applications of Telecommunications" chapters, describing utility opportunities in telecommunications, of a major telecommunications report for the Electric Power Research Institute;

- Analyzing telecommunications opportunities, costs, and modes of entry for several major electric utilities, leading in one case to a decision by the utility to deploy a backbone fiber optics network and partner with other entities in the provision of Personal Communications Services;

- Developing material on telecommunications technology for inclusion in a report on international telecommunications prepared by the Office of Technology Assessment of the U.S. Congress;

- Analyzing trends in telecommunications architectures and technologies for a major computer company;

- Providing tactical advice and computer network support for a client bidding in the FCC auction of 900 MHZ Specialized Mobile Radio licenses;

- Assessing opportunities for the branches of the U.S. Military to consolidate their use of wireless communications;

- Providing analyses for an investment firm contemplating a major investment in a paging company;

- Providing telecommunications education to countries in Central and Eastern Europe; and

- Assessing the impact of major telecommunications issues on cable television companies.

## Qualifications in Telecommunications Education

HAI and its principals have been heavily involved in telecommunications education, both in the U.S. and in Eastern and Central Europe. HAI principals hold adjunct teaching positions in the Telecommunications Programs at the University of Colorado and the University of Denver. Course topics range from the basic terms and concepts of telecommunications to enterprise computer networking, and also include, economic regulation, the telecommunications infrastructure, issues concerning the structure and management of the North American Numbering Plan, and the architecture and technology of wireless communications.

Attachment

**Daniel Kelley**

**PROFESSIONAL EXPERIENCE:**

**Senior Vice President, Hatfield Associates, Boulder Colorado (current position).**

Conducting economic and applied policy analysis of domestic and international telecommunications public policy and business issues. Recent projects have included advising Central and Eastern European Governments on privatization and competition matters, assisting a private client with entry into the long distance market in Mexico, analyzing competitive conditions in cellular radio markets, and analyzing the economics of cable television regulation.

**Director of Regulatory Policy, MCI Communications Corporation, 1984-1990.**

Responsible for developing and implementing MCI's public policy positions on issues such as dominant carrier regulation, Open Network Architecture, accounting separations and Bell Operating Company line of business restrictions. Also managed an interdisciplinary group of economists, engineers and lawyers engaged in analyzing AT&T and local telephone company tariffs.

**Senior Economist and Project Manager, ICF Incorporated, 1982-1984.**

Telecommunications and antitrust projects included: forecasting long distance telephone rates; analysis of the competitive effects of AT&T's long distance rate structures; a study of optimal firm size for cellular radio markets; analysis of the FCC's Financial Interest and Syndication Rules, and competitive analysis of mergers and acquisitions in a variety of industries.

**Senior Economist, Federal Communications Commission, 1979-1982.**

Served as Special Assistant to the Chairman during 1980-1981. Advised the Chairman on proposed regulatory changes in the broadcasting, cable television and telephone industries; analyzed legislation and drafted Congressional testimony. Coordinated Bureau and Office efforts on major common carrier matters such as the Second Computer Inquiry and the Competitive Carrier Rule-making. Also held Senior Economist positions in the Office of Plans and Policy and the Common Carrier Bureau.

**Staff Economist, U.S. Department of Justice, 1972-1979.**

Analyzed proposals for restructuring the Bell System as a member of the economic staff of U.S. v. AT&T; investigated the competitive effects of mergers and business practices in a wide variety of industries.

**EDUCATION:**

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|---|---|---|
| 1976 | Ph.D. in Economics | University of Oregon |
| 1971 | M.A. in Economics | University of Oregon |
| 1969 | B.A. in Economics | University of Colorado |

**PUBLICATIONS AND COMPLETED RESEARCH:**

"A General Approach to Local Exchange Carrier Pricing and Interconnection Issues," Telecommunications Policy Research Conference, Solomons, Md., (1992).

"Gigabit Networks: Is Access a Problem?" IEEE Gigabit Networking Workshop (1992).

"Advances in Network Technology" in Barry Cole, ed., After the Break-Up: Assessing the New Post-AT&T Divestiture Era (1991).

"Alternatives to Rate of Return Regulation: Deregulation or Reform?" in Alternatives to Rate Base Regulation in the Telecommunications Industry, NARUC (1988).

"AT&T Optional Calling Plans: Promotional or Predatory" in Harry M. Trebing, ed., Impact of Deregulation and Market Forces on Public Utilities: The Future Role of Regulation (1985).

"The Economics of Copyright Controversies in Communications" in Vincent Mosco, ed., Policy Research in Telecommunications (1984).

"Deregulation After Divestiture: The Effect of the AT&T Settlement on Competition," FCC, OPP Working Paper No. 8 (1982).

"The Transition to Structural Telecommunications Regulation," in Harry M. Trebing, ed., New Challenges for the 1980's (1982), with Charles D. Ferris.

"Social Objectives and Competition in Common Carrier Communications: Incompatible or Inseparable?" in Harry M. Trebing ed., Communications and Energy in Transition (1981), with Nina W. Cornell and Peter R. Greenhalgh.

"An Empirical Survey of Price Fixing Conspiracies," Journal of Law and Economics (1974), with George A. Hay. Reprinted in Siegfried and Calvari, ed., Economic Analysis and Antitrust Law (1978) and the Journal of Reprints for Antitrust Law and Economics (1980).

**TESTIMONY:**

Federal Communications Commission, Application of Cellular Communications of Cincinnati, July 25, 1983 (with Robert J. Reynolds): Optimum firm size in the cellular radio market

Maryland Public Service Commission, Case No. 0450-Phase II, May 31, 1983: Access charge implementation issues

New York Public Service Commission, Case No. 28425, June 1983: Access charge implementation issues

Florida Public Service Commission, Docket No. 820537-TP, June 30, 1983, November 4, 1983, April 9, 1984, June 4, 1984, September 7, 1984, October 25, 1984 and August 15, 1985: Access charge implementation issues

Pennsylvania Public Utility Commission, Docket No. R-832, August 5, 1983: Pennsylvania Bell Rate Case

New Jersey Board of Public Utilities, Docket No. 83-11, February 20, 1984: Access charge implementation issues

New York Public Service Commission, Case 88-C-102, March 2, 1990: Alternative Operator Service Issues

California Public Service Commission, A.90-07-015, July 10, 1990: AT&T Deregulation

New York Public Service Commission, Case 28425, October 8, 1990: IntraLATA Dial 1 Competition

Massachusetts Department of Public Utilities, DPU 90-133, October 17, 1990: AT&T Deregulation

Georgia Public Service Commission, 3905-U, November 16, 1990: Incentive Regulation

California Public Service Commission, I-87-11-033, September 23, 1991: IntraLATA Competition

Georgia Public Service Commission, Docket No. 3987-U, January 31, 1992: Cross-Subsidy

Colorado Public Utilities Commission, Docket No. 92R-050T, August 24, 1992: Collocation

Connecticut Department of Public Utility Control, Docket No. 9106-10-06, September 25, 1992: Infrastructure

Maryland Public Service Commission, Case No. 8584, Phase II, July 21, 1995: Local Competition

Connecticut Department of Public Utility Control, Docket No. 95-06-17, September 8, 1995: Local Competition

**SELECTED PRESENTATIONS:**

"Telecommunications Market Economics," U.S. Department of State Telecommunications Policy Issues Seminar, Prague, Czech Republic, April 18, 1994.

"Telecommunications Regulation and Competition: Public Policy Alternatives" and "Resale, Unbundling and Interconnection Issues: Increasing the Value of a Monopoly Network," United States Telecommunications Training Institute, Washington, D.C., July 14-15, 1992.

"New Telecommunications Technologies," New Mexico State University Telecommunications Workshop, Santa Fe, New Mexico, April 8, 1991.

"Large Customer Pricing Issues," NARUC Advanced Course for Regulators, Williamsburg, Virginia, February 14, 1990.

"Policy Issues for the 1990s," Temple University Symposium on Telecommunications, Philadelphia, Pennsylvania, December 4, 1989.

"FCC Price Cap Regulation," National Conference of State Legislators Annual Meeting, Tulsa Oklahoma, August 6, 1989.

"Freeing the Baby Bells to Compete?" CATO Institute Policy Forum, Washington, D.C., June 12, 1989.

"Interstate Price Cap Regulation: Where Do We Go from Here?," KMB Video Journal, Vol. 4, No. 1, Boston, Massachusetts, 1988.

"Contrasting Federal and State Regulation," George Washington University Symposium on Federal/State Price-of-Service Regulation, Washington, D.C., December 11, 1987.

"Comment on Deregulation," Brookings Institution Technology and Government Policy in Computers and Communications Conference," Washington, D.C., June 4, 1987.

"Bell Operating Company Line of Business Restrictions," Allied Social Sciences Meeting, New York, New York, December 29, 1983.